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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/681,863 | 10/08/2003 | Ian D. Robb | 2003-IP-010874U1 | 7383 |

7590 02/10/2005

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| EXAMINER |
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CHOI, LING SIU

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| ART UNIT | PAPER NUMBER |
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1713

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

LD

Office Action Summary

Application No.

10/681,863

Applicant(s)

ROBB, IAN D.

Examiner

Ling-Siu Choi

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) 56-73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/10/03 & 10/8/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-55, drawn to a method to prepare an aqueous fluid (claims 1-28) and a method to treat a subterranean formation penetrated by a well bore (claims 29-55), classified in class 507, subclass 224.
 - II. Claims 56-73, drawn to an aqueous fluid useful in subterranean well operations, classified in class 526, subclass 317.1.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I (claims 29-55) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product as an absorbent.

Inventions I (claims 1-28) and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the

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instant case the product as claimed can be made by another and materially different process such as a process comprising synthesizing a linear polymer and then crosslinking it.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Robert A. Kent on January 14, 2005, a provisional election was made without traverse to prosecute the invention of Group I, claims 1-55. Affirmation of this election must be made by applicant in replying to this Office action. Claims 56-73 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

6. Claims 1, 25, and 52 are objected to because of the following informalities: (a) claim 1,

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line 4, "the crosslinking agent" is suggested to be changed to --the cross-linking agent and the initiator--, (b) claim 25, line 2, "a material" is suggested to be changed to --a comonomer--, and (c) claim 52, line 2, "a material" is suggested to be changed to --a comonomer--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Zweigle et al. (US 4,172,066), Le et al. (US 6,169,058), or Dollarhide et al. (US 3,353,601).

The present invention relates to a method to prepare an aqueous fluid for use in a subterranean formation, comprising

| | |
|---|--|
| A | combining one or more monomers with a cross-linking agent, and an initiator |
| B | polymerizing the monomers in the presence of the cross-linking agent and the initiator to form synthetic, crosslinked polymer gels |
| C | combining the synthetic, crosslinked polymer gels with water to form an aqueous fluid |
| wherein the polymer gels have an average particle size less than about 100 micron | |

(summary of claim 1)

Zweigle et al. disclose a method to use a composition for restricting the flow of liquids through pore structure, the composition comprising discrete, spheroidal microgels of a water-swallowable polymer, wherein the microgels have diameters less than about 20 micrometers in the dry state and have diameters in the range from about 0.5 to about 200 micrometers in an aqueous fluid medium and wherein the microgels are obtained by the water-in-oil emulsion polymerization of acrylamide, acrylic acid, and methylene bisacrylamide in the presence of t-butyl hydroperoxide (col. 1, lines 29-35; col. 3, lines 12-34; col. 5, lines 29-38; col. 6, lines 11-19; Example 5; claims 1 and 6).

Le et al. disclose a method to use a composition to treat a subterranean formation, the composition comprising a dispersion of hydrophilic water swallowable particles which comprises crosslinked synthetic hydrophilic polymers and have a size ranging from about 0.5 μm to about 5 μm , wherein the polymers are obtained by an invert emulsion polymerization of acrylamide and acrylic acid in the presence of a methylenebisacrylamide as a crosslinker and a persulfate as an initiator (abstract; col. 3, lines 45-55; col. 13, lines 50-53; claims 1, 18, and 22).

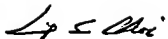
Dollarhide et al. disclose a method to use a composition to plug off encroaching water through fissures or fractures, the composition comprising a cross-linked particulated polymer which has a average particle size between about 4 and 200 mesh and is a water swallowable particulated polymer obtained by a free-radical polymerization (col. 3, lines 5-51; col. 4, lines 1-10; claims 1 and 4).

Thus, the present claims are anticipated by the disclosure of Zweigle et al., Le et al., and Dollarhide et al.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI
PRIMARY EXAMINER**

January 25, 2005